

AMENDMENT UNDER 37 C.F.R. § 1.111  
Application Serial No. 10/689,595

**REMARKS**

Claims 1-14 are all the claims pending in the application. Claims 1-3, 5-7, 9-12 and 14 are amended. Claims 4, 8 and 13 are canceled without prejudice or disclaimer. No new matter is presented.

Dealing with preliminary matters first, Applicant notes with appreciation the Examiner's indication that the drawings filed on October 22, 2003 are accepted. Further, Applicant thanks the Examiner for acknowledging the claim for foreign priority and the receipt of the certified copy of the priority document, as well as for indicating that the references cited in the Information Disclosure Statement submitted on October 22, 2003 have been considered.

To summarize the Office Action, the specification is objected to for informalities and claims 1-3 and 8-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Persson (U.S. Patent No. 6,519,384) in view of Tervonen et al. (U.S. Patent Publication No. 2002/0071156, hereinafter "Tervonen"). Further, claims 4-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The outstanding objections and rejections are addressed as follows.

**Objections to the Specification**

The disclosure is objected to for various informalities. Applicant has amended the specification in the manner suggested by the Examiner. Therefore, withdrawal of the objections is requested.

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**Claim rejections - 35 U.S.C. § 103**

As noted above, claims 1-3 and 8-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Persson in view of Tervonen. This ground of rejection is traversed.

With respect to independent claim 1, Applicant notes that claim 1 is amended to recite subject matter of claim 2 together with subject matter of claim 4, which was objected to by the Examiner, without the subject matter of intervening claim 3. For example, claim 1 defines a method for optimizing the sequence order of optical passive filters in Wavelength Division Multiplex multi-channel transmission system which comprises, *inter alia*, setting a number of parameters identifying the WDM system, defining an attenuation profile over different channels of the WDM system by using the parameters, determining an order sequence of the different channels in a mux/demux structure from the attenuation profile, determining an insertion loss profile of the different channels from the order sequence, and determining a minimum span length between nodes resulting from applying the order sequence. Further, the parameters comprise a number of channels, set of wavelengths of the channels, fiber loss profile of the optical fiber, insertion loss model, span length target, power budget between nodes and the maximum number of intermediate nodes.

Applicant submits that all the limitations of claim 1 are neither taught nor suggested by the teachings of Persson and Tervonen, whether taken alone or in combination. For instance, Persson teaches a network carrying multiple WDM channel wavelengths which includes filter elements for adding channel wavelengths which are transmitted by a node and dropping channel

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wavelengths which are destined for the node. (see Persson at col. 1, line 67 - col. 2, line 6). As taught by Persson, the distribution of power loss may be optimized by adding a channel with the highest loss downstream of an add node (i.e., multiplexor) to the transmission path last, and the channel with the highest loss then may be filtered out first at a drop node (i.e., demultiplexor). (see Persson at col. 4, lines 42-45 and col. 5, line 66 - col. 6, line 8). However, Persson merely teaches the channel wavelength which is added last and/or dropped first is determined based on an actual power loss relative to a maximum allowed link power loss. (Persson at col. 4, lines 25-28). Thus, Persson *at least* fails to teach or suggest the features of setting the claimed parameters identifying the WDM system, defining an attenuation profile over different channels by using the claimed parameters and determining an order sequence of the different channels from the claimed attenuation profile.

Nor does Tervonen teach or suggest limitations of claim 1 which are deficient in Persson. For instance, Tervonen teaches an optical add/drop multiplexor wherein chosen optical signals having different wavelengths may be added or dropped by selection of input and output gates of a wavelength selective organ to optimize the attenuation of the longest connections. (Tervonen at paragraph 27). However, Tervonen merely suggests that the grating order of the add/drop devices is optimized to reduce the total attenuation. (Tervonen at paragraph 63). Thus, Tervonen likewise fails to teach or suggest *at least* the features of setting the claimed parameters identifying the WDM system, defining an attenuation profile over different channels by using the claimed parameters, and determining an order sequence of the different channels from the claimed attenuation profile.

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Therefore, the combination of Persson in view of Tervonen fails to teach or suggest all the limitations of independent claim 1. Accordingly, reconsideration and withdrawal of the rejection of claim 1 is requested. Further, Applicant submits that claims 2-3 and 5-7 are allowable at least by virtue of depending from claim 1. Allowance of dependent claims 2-3 and 5-7 is therefore requested.

In addition, Applicant submits the above arguments with respect to claim 1 are equally applicable to independent claims 9 and 14, which respectively define a device comprising a mux/demux structure of passive optical filters and a computer readable medium comprising computer program code adapted to perform a method for optimizing the sequence order of optical passive filters with similar features as recited in claim 1. Therefore, independent claims 9 and 14 should be allowable at least for the reasons discussed above relative to claim 1. Further, Applicant submits that claims 10-13 are allowable at least by virtue of depending from claim 9, and allowance of claims 10-13 is requested.

**Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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